

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

COMPLETE LISTING OF CLAIMS:

Claims 1-22 : (Canceled)

Claim 23 : (New) An optical information transmission system, comprising:

a) a plurality of optical transmitters and optical receivers, each transmitter and receiver having ports for interchangeable waveguides, each transmitter having an enable input for receiving an enable signal associated therewith, each transmitter being operative for generating or not generating an optical information signal according to a status of the enable signal;

b) a plurality of signal generators each operative for generating the enable signal associated with a respective receiver, the status of the enable signal indicating whether the respective receiver is or is not connected to a respective transmitter by a respective waveguide, each signal generator being connected to the enable input by an enable control line wired independently from the waveguides and being operative for generating the enable signal only if a test signal specific for the respective receiver has before been received at its respective waveguide port; and

c) means for transmitting a description of the test signal of the respective receiver to the associated respective transmitter.

Claim 24 : (New) The optical information transmission system according to claim 23, wherein each receiver has a memory associated therewith for storing the description of the respective test signal.

Claim 25 : (New) The optical information transmission system according to claim 23, wherein each receiver has a random generator associated therewith for randomly generating the description of the respective test signal.

Claim 26 : (New) The optical information transmission system according to claim 23, and a central unit for assigning to each receiver the test signal description specific for that receiver.

Claim 27 : (New) The optical information transmission system according to claim 23, wherein the means for transmitting the description of the test signal is the enable control line.

Claim 28 : (New) The optical information transmission system according to claim 27, wherein the enable control line assumes two levels.

Claim 29 : (New) The optical information transmission system according to claim 27, wherein the test signal is described by a digital number.

Claim 30 : (New) The optical information transmission system according to claim 29, wherein each transmitter comprises an encoder for encoding the digital number into the test signal, and wherein each receiver has a decoder for extracting the digital number encoded in the test signal.

Claim 31 : (New) The optical information transmission system according to claim 23, wherein the test signal is described by at least one instant at which the test signal changes its level.

Claim 32 : (New) The optical information transmission system according to claim 23, wherein each transmitter transmits the test signal with a lower average power than the information signal.

Claim 33 : (New) The optical information transmission system according to claim 23, wherein each transmitter comprises a laser and an amplifier connected between the laser and the waveguide port of the transmitter, and wherein the laser is operable only in the presence of the enable signal.

Claim 34 : (New) The optical information transmission system according to claim 23, wherein the transmitters and the receivers are located on circuit boards mounted on a backplane, and wherein each enable control line extends along the backplane.

Claim 35 : (New) A transmitter for an optical information transmission system, comprising: an optical output port, an enable signal input, and a modulated radiation source for providing an optical information signal at the optical output port when an enable signal is present at the enable control input, the radiation source being operative to output a coded optical test signal at the optical output port when the enable signal is not applied.

Claim 36 : (New) A receiver for an optical information transmission system, comprising: an optical input port, an enable signal output, and a decoder for comparing a code contained in a test signal applied to the optical input port with an expected code, and for generating an enable signal upon coincidence of the codes.

Claim 37 : (New) A method of suppressing unprotected emission of information signals from transmitters of an optical information processing system in which each transmitter is connected to an associated receiver by an enable control line so as to control enablement of the emission, and in which an optical waveguide is adapted to be connected between a respective transmitter and a respective receiver, comprising the steps of:

a) outputting, by a respective transmitter, an optical test signal specific for an associated respective receiver;

b) examining the test signal incident at the respective receiver; and

c) if the test signal has arrived at the respective receiver, enabling transmission of the respective information signal;

d) the steps a) to c) being performed when a respective waveguide has been detected as being connected to the respective receiver.

Claim 38 : (New) The method of claim 37, wherein the steps are performed in an initial operation phase of the system.

Claim 39 : (New) The method of claim 37, and the step of transmitting a description of the test signal beforehand from the respective receiver to the associated respective transmitter.

Claim 40 : (New) The method of claim 39, wherein the transmitting step is performed by transmitting a digital number as the description, and wherein the test signal is found to have arrived at the respective receiver if the same number is decoded in the test signal.

Claim 41 : (New) The method of claim 39, wherein the transmitting step is performed by transmitting the test signal having a level change at determined time intervals as the description, and wherein the test signal is found to have arrived at the respective receiver if, in the test signal, level changes are observed in the same time intervals.

Claim 42 : (New) The method of claim 37, wherein the information signal is coherent, and wherein the test signal is incoherent.